

## ORM 2013 PC Co-Chairs Message

Following successful workshops in Cyprus (2005), France (2006), Portugal (2007), Mexico (2008), Portugal (2009), and Greece (2010 and 2011), and Rome (2012), this is the ninth fact-oriented modeling workshop run in conjunction with the OTM conferences. Fact-oriented modeling is a conceptual approach for modeling and querying the semantics of business domains in terms of the underlying facts of interest, where all facts and rules may be verbalized in language readily understandable by users in those domains.

Unlike Entity-Relationship (ER) modeling and UML class diagrams, fact-oriented modeling treats all facts as relationships (unary, binary, ternary etc.). How facts are grouped into structures (e.g. attribute-based entity types, classes, relation schemes, XML schemas) is considered a design level, implementation issue irrelevant to capturing the essential business semantics. Avoiding attributes in the base model enhances semantic stability, simplifies populatability, and facilitates natural verbalization, thus offering more productive communication with all stakeholders. For information modeling, fact-oriented graphical notations are typically far more expressive than other notations. Fact-oriented modeling includes procedures for mapping to attribute-based structures, so may also be used to front-end those other approaches.

Though less well known than ER and object-oriented approaches, fact-oriented modeling has been used successfully in industry for over 30 years, and is taught in universities around the world. The fact-oriented modeling approach comprises a family of closely related "dialects", including Object-Role Modeling (ORM), Cognition enhanced Natural language Information Analysis Method (CogNIAM) and Fully-Communication Oriented Information Modeling (FCO-IM). Though adopting a different graphical notation, the Object-oriented Systems Model (OSM) is a close relative, with its attribute-free philosophy. The Semantics of Business Vocabulary and Business Rules (SBVR) proposal adopted by the Object Management Group in 2007 is a recent addition to the family of fact-oriented approaches.

Software tools supporting the fact-oriented approach include the ORM tools NORMA (Natural ORM Architect), ActiveFacts, InfoModeler and ORM-Lite, the CogNIAM tool Doctool, and the FCO-IM tool CaseTalk. The Collibra ontology tool suite and DogmaStudio are fact-based tools for specifying ontologies. Richmond is another ORM tool under development. General information about fact-orientation may be found at [www.ORMFoundation.org](http://www.ORMFoundation.org).

This year, submissions were contributed by authors from Australia, Belgium, Canada, Italy, Malaysia, Norway, The Netherlands, and the USA. After an extensive review process by an international program committee, with each paper receiving four reviews, we accepted the 11 papers that appear in these proceedings. Congratulations to the successful authors! We gratefully acknowledge the generous contribution of time and effort by the program committee, the OTM General Chairs (Robert Meersman, Tharam Dillon and Hervé Panetto), the OTM Workshops General Chair (Yan Tang Demey), and the Logistics Team (Jan Demey and Daniel Meersman).

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Terry Halpin